

NOT FOR CITATION

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

ATS AUTOMATION TOOLING
SYSTEMS, INC., et al.,

Plaintiffs,

No. C 03-2648 PJH

v.

CLAIM CONSTRUCTION ORDER

FOXCONN ELECTRONICS INC. , et al.,

Defendants.

13 A claim construction hearing to construe the disputed terms of U.S. Patent No.
14 5,494,098 (“the ‘098 patent”), pursuant to Markman v. Westview Instruments, Inc., 517 U.S.
15 370 (1996), was held on August 18, 2004 before this court. Plaintiffs appeared through their
16 counsel John Regan, and defendants appeared through their counsel Terry Garnett and Peter
17 Wied.¹ Having read the parties’ papers and carefully considered their arguments and the
18 relevant legal authority, the court hereby rules as follows for the reasons stated at the hearing.

BACKGROUND

A. General Background

21 Plaintiffs ATS Automation Tooling Systems and Thermal Form and Function are,
22 respectively, the exclusive licensee and assignee of the '098 patent. The '098 patent covers
23 fan-driven heat sinks, which are typically used to prevent the heat generated by a computer's
24 microprocessors from damaging other computer components.

25 Plaintiffs have sued Foxconn Electronics Inc., Foxconn International Inc., Hon Hai
26 Precision Industry Co. Ltd., and Foxconn Precision Components Co., Ltd. for infringement of
27 claims 1, 2, 7, 8, and 9 of the '098 patent. Claims 1, 7, and 9 are independent claims, while

¹ Defendants' counsel filed a notice of appearance in this matter on August 13, 2004, after the claim construction briefs were filed.

1 claim 2 is dependent on claim 1 and claim 8 is dependent on claim 7.

2 The following four terms are disputed: “housing,” “extending/extends,” “channels,” and
3 “plenum chamber.” The parties have stipulated to the construction of additional terms. Joint
4 Claim Construction and Pre-Hearing Statement Exh. A (“solid flat base,” “parallel,” “spaced,”
5 “connected,” “unconnected,” and “single continuous length of material”); see also Supplemental
6 Joint Claim Construction Statement, filed August 25, 2004 (“fin”).

7 B. Prosecution History

8 The application for the ‘098 patent was filed on June 17, 1994. In the first office action
9 by the PTO, all the independent claims in the application and one dependent claim were
10 rejected as unpatentable over U.S. Patent No. 4,790,373 (“Raynor”) in view of U.S. Patent No.
11 4,513,812 (“Papst”). In response, the applicant rewrote four of the dependent claims as
12 independent claims, and distinguished those claims from Raynor on the basis of a significant
13 gap between the heat sink fins and a wall supporting the fan in Raynor, which were not seen in
14 the applicant’s invention. Appendix Exh. 2 at 55, 61-66.

15 In the second office action, two other claims were cancelled in light of U.S. Patent No.
16 5,368,094 (“Hung”), which disclosed a fan-driven heat sink with a fan mounted directly on a set
17 of parallel fins. Appendix Exh. 2 at 70. In distinguishing over Hung, the applicant stated that
18 “the top wall of applicant’s heat sink assembly . . . covers substantially the top ends of the fins
19 to form with the base tubular ducts which extend from the aperture in the top wall to each end
20 opening.” Id. at 76. This explanation was in support of claims which have not been asserted
21 in this case.

22 With these changes, the application was approved on September 19, 1995 and the
23 ‘098 patent issued on February 27, 1996.

24 **DISCUSSION**

25 A. Legal Standards

26 In construing claims, the court must begin with an examination of the claim language
27 itself. “The terms used in the claims bear a ‘heavy presumption’ that they mean what they say
28 and have the ordinary meaning that would be attributed to those words by persons skilled in

1 the relevant art.” Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202 (Fed. Cir.
2 2002) (citations omitted), cert. denied, 123 S.Ct. 2230 (2003). See also Renishaw PLC v.
3 Marposs Societa’ per Azioni, 158 F.3d 1243, 1248 (Fed. Cir. 1998) (“The claims define the
4 scope of the right to exclude; the claim construction inquiry, therefore, begins and ends in all
5 cases with the actual words of the claim.”). In determining ordinary meaning, the court is
6 explicitly permitted to rely on reference materials such as dictionaries, treatises, or
7 encyclopedias in general use on the date of the patent’s issuance. Texas Digital, 308 F.3d at
8 1202-03 (citations omitted).

9 The words in the claim must then be interpreted “in light of the intrinsic evidence of
10 record, including the written description, the drawings, and the prosecution history, if in
11 evidence.” Teleflex, Inc. v. Ficosa North Am. Corp., 299 F.3d 1313, 1324-25 (Fed. Cir. 2002)
12 (citations omitted). “Such intrinsic evidence is the most significant source of the legally
13 operative meaning of disputed claim language.” Vitronics Corp. v. Conceptronic, Inc., 90 F.3d
14 1576, 1582 (Fed. Cir. 1996).

15 A patentee is presumed to have intended the ordinary meaning of a claim term in the
16 absence of an express intent to the contrary. York Products, Inc. v. Central Tractor Farm &
17 Family Ctr., 99 F.3d 1568, 1572 (Fed. Cir. 1996). Furthermore, “unless compelled otherwise,
18 a court will give a claim term the full range of its ordinary meaning as understood by persons
19 skilled in the relevant art.” Texas Digital, 308 F.3d at 1202 (citations omitted).

20 Intent to limit the scope of a claim, despite apparently-broad language, can be shown in
21 four ways. First, if the patentee “acted as his own lexicographer,” and clearly set forth a
22 definition of the disputed term in either the specification or the prosecution history, the court
23 will defer to that definition. CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed.
24 Cir. 2002) (citations omitted). Second, the court will alter the ordinary meaning of a term “if
25 the intrinsic evidence shows that the patentee distinguished that term from prior art on the
26 basis of a particular embodiment, expressly disclaimed subject matter, or described a
27 particular embodiment as important to the invention.” Id. at 1367. Third, a claim term will not
28 take its ordinary meaning “if the term chosen by the patentee so deprives the claim of clarity

1 as to require resort to the other intrinsic evidence for a definite meaning.” *Id.* Finally, a term in
2 a step- or means-plus-function claim is limited by statute to the structure or step described in
3 the embodiment. 35 U.S.C. § 112 ¶ 6.

4 Limitations from the specification, such as from the preferred embodiment, cannot be
5 read into the claims absent an express intention to do so. *Teleflex*, 299 F.3d at 1326 (“The
6 claims must be read in view of the specification, but limitations from the specification are not
7 to be read into the claims.”) (citations omitted); *CCS Fitness*, 288 F.3d at 1366 (“a patentee
8 need not describe in the specification every conceivable and possible future embodiment of
9 his invention.”); *Altiris v. Symantec Corp.*, 318 F.3d 1363, 1372 (Fed. Cir. 2003) (“resort to the
10 rest of the specification to define a claim term is only appropriate in limited circumstances”).
11 To protect against this, the court should not consult the intrinsic evidence until after reviewing
12 the claims in light of the ordinary meaning of the words themselves. *Texas Digital*, 308 F.3d at
13 1204-05 (to act otherwise “invites a violation of our precedent counseling against importing
14 limitations into the claims”) (citations omitted).

15 Only if an analysis of the intrinsic evidence fails to resolve any ambiguity in the claim
16 language may the court then rely on extrinsic evidence, such as expert declarations. *Vitronics*,
17 90 F.3d at 1583 (“In those cases where the public record unambiguously describes the scope
18 of the patented invention, reliance on any extrinsic evidence is improper”).

19 B. “Housing”

20 Plaintiffs propose that the term “housing” be construed as “an enclosure,” while
21 defendants propose that the term be construed as “an enclosure placed over the fins of the
22 heat sink.”

23 It is true that the plain meaning of the term “housing” is simply “something that covers or
24 protects,” and does not ordinarily encompass additional limitations concerning where the
25 enclosure is placed in a heat sink device. However, when interpreting claim language, the
26 court must review the claim as a whole and incorporate into the construction the context in
27 which the term occurs. *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 25 (Fed.
28 Cir. 2000).

1 As plaintiffs themselves admit, the remainder of the language in claim 1 specifies that
2 the fins are enclosed within the housing, since the fins extend to the top wall of the housing.
3 See Claim 1(c); see also Claim 7(c), 9(c).² Furthermore, the patentee specifically modified
4 the term “housing” to “fan housing” to indicate when a housing unit is located over the fan. See
5 Claims 2, 7(d). In the overall context of this patent, it is clear that when the term “housing” is
6 used standing alone, it indicates a housing enclosure located over the fins of the heat sink.

7 The prosecution history supports this interpretation as well. The applicant, in response
8 to an inquiry by the examiner, stated that the heat sink featured “fins which extend from a base
9 wall to a top wall [of the housing enclosure] to define a plurality of channels,” which shows that
10 the fins must be within the housing unit. Appendix Exh.2 at 65.³ Similarly, the applicant
11 acquiesced in the examiner’s conclusion that its invention, like Raynor’s, featured an
12 enclosure over the fins of the heat sink. Id. at 55, 65 (applicant accepting examiner’s
13 statement that Raynor was identical to claimed patent except for the size of the gap between
14 the fins and the top wall).

15 Thus, the court adopts defendants’ construction of the term “housing” as **an enclosure**
16 **located over the fins of the heat sink.**

17 C. Extending/Extend

18 Plaintiffs propose that the term “extending” be construed as “projecting in a direction,”
19 and defendants propose “stretching in distance.” Similarly, plaintiffs propose that the term
20 “extend” be construed as “project/projects in a direction,” while defendants propose “stretches

22 ² Plaintiffs argue that by adopting defendants’ proposed construction, the court would
23 render redundant this subsequent claim language. On the contrary, it appears that it would render
24 a more consistent reading overall to define the term “housing” as requiring an enclosure over the
fins of the heat sink.

25 ³ Plaintiffs claim that this statement cannot be considered binding because it was
26 made in the context of a separate claim which is not at issue here. However, “arguments made
27 during prosecution regarding the meaning of a claim term are relevant to the interpretation of that
term in every claim of the patent absent a clear indication to the contrary.” Southwall Techs., Inc.
v. Cardinal IG Co., 54 F.3d 1570, 1579 (Fed. Cir. 1995). Here, the applicant made no indication
28 at the time of the prosecution that this discussion was restricted to the use of the term “tubular
ducts,” and is thus bound by the statement for the purposes of the interpretation of all the claims.

1 in distance.” At the hearing, defendants clarified that their definition requires that the
2 extending object must stretch to reach, or abut, another object. Thus, the dispute centers on
3 whether the extending object – the fins – must touch the top wall of the housing.

4 Plaintiffs are correct that the dictionary definition of the term “extend” does not require
5 that the object being extended reach any specific endpoint. While the object in question may
6 reach an endpoint, the term does not imply any requirement that it do so. Plaintiffs also note
7 that claim 11, which is not asserted in this litigation, specifically states that it covers a heat
8 sink with a housing that “abuts” the upper ends of the fins. The doctrine of claim differentiation
9 “create[s] a presumption that each claim in a patent has a different scope. There is presumed
10 to be a difference in meaning and scope when different words or phrases are used in
11 separate claims.” Comark Communications, Inc. v. Harris Corporation, 156 F.3d 1182, 1187
12 (Fed. Cir. 1998) (citation omitted). Thus, the term “extend” and “extending,” as used in the
13 ‘098 patent, can be distinguished from the use of the term “abut,” to mean an object reaching
14 to and touching an endpoint.

15 Defendants argue in response that the terms “extend” and “extending” must be read in
16 light of the examiner’s comments concerning the Raynor prior art. While the prosecution
17 history does limit the definition of the term, it does not require a reading as limited as
18 defendants suggest. In prosecuting the patent, the applicant never stated that his invention
19 required the fins to make contact with the top wall. The applicant did distinguish the invention
20 from Raynor, which features a large gap between the top wall and the fins, but the applicant
21 only did so on the grounds that Raynor featured “more than a trivial or insignificant spacing
22 between the fan from the cooling fins.” Appendix Exh. 2 at 66. The applicant did not concede
23 that the fins were required to touch the top wall, but did admit that its invention could not show
24 a non-trivial or significant space between the fins and the top of the housing.⁴

25 The court finds that neither construction proffered by the parties is entirely accurate,
26

27 ⁴ Similarly, while the applicant conceded that its patent covered a heat sink assembly
28 where the top wall “covers substantially the top ends of the fins,” Appendix Exh. 2 at 76, this does
not necessarily imply that the top ends of the fins extend to the point where they make physical
contact with the top wall either.

1 and instead construes the term “extend/extending” as follows: **projecting in a direction and**
2 **reaching to at least the point at which only a trivial or insignificant gap exists between**
3 **the projecting object and an endpoint.**

4 D. Channels

5 Plaintiffs propose that the term “channels” be construed as “passages for air flow,”
6 while defendants propose “an enclosed passage through which air moves.”

7 Defendants argue that the applicant specifically stated when prosecuting the patent that
8 the invention “maintain[s] the channels between the fins enclosed except for the end opening.”
9 Appendix Exh. 2 at 66 (emphasis added). Thus, the channels must be enclosed. As
10 previously discussed, though, plaintiffs are also correct that the claim language and
11 prosecution history does not require the fins to actually touch the top wall of the enclosure and
12 thus seal off the tops of the channels – as long as the gap between the fins and the top wall
13 remains trivial or relatively insignificant. Thus, as with the previous term, the court finds that
14 neither construction proffered by the parties is entirely accurate, and construes the term
15 channels as **“passages for air flow, enclosed within the housing unit with vertical walls**
16 **reaching at least to the point where only a trivial or insignificant gap exists between**
17 **the walls and the top wall of the housing.”**

18 E. Plenum Chamber

19 Plaintiffs propose that the term “plenum chamber” be construed as “a space for the
20 distribution of air,” while defendants propose “an enclosed space in which air is at a pressure
21 greater than that of the outside atmosphere.

22 While again, the dictionary definitions show multiple meanings, in reviewing the claims
23 and specification, it is clear that the patent specifically states that the plenum chamber is used
24 to distribute air, as plaintiffs propose. Col. 3:40-44 (“Pressurized air from the fan enters
25 plenum chamber which helps to distribute the pressurized air evenly in all of the spaces
26 between the fins and a high velocity air flow is created in the spaces between the fins.”)

27 In addition, nothing from the patent supports defendants’ construction that a plenum
28 chamber is one where air inside the chamber has a greater pressure than air outside.

1 Defendants cite col. 3:40-41 (“Pressurized air from the fan enters plenum chamber”) and col.
2 4:18-19 (“Super atmospheric air from the fan enters plenum chamber”) as support for its
3 construction, but, as plaintiffs note, this portion of the specification merely shows that in one
4 embodiment, pressurized air enters the chamber due to the fan. It does not support the idea
5 that air inside the chamber has a different pressure from air outside the chamber. Therefore,
6 nothing in the claims or the specification requires that the air within the plenum chamber be
7 pressurized, so plaintiffs’ construction should be adopted. Texas Digital, 308 F.3d at 1202
8 (term given full range of meaning absent indications in claims or specification to do
9 otherwise).

10 The term “plenum chamber” is construed as: **a space for the distribution of air.**
11

12 The parties are ordered to submit a joint case management status report pursuant to
13 Patent Standing Order ¶ 13 within 21 days of the filing of this order. The court will review the
14 report and contact the parties if a further case management conference is needed. This order
15 fully adjudicates the matter listed at no. 52 on the clerk’s docket for this case.

16 **IT IS SO ORDERED.**

17 Dated: August 30, 2004

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19 /s/ _____
20 PHYLLIS J. HAMILTON
21 United States District Judge
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